What is claimed is:

1. A process for producing a graphite article, comprising forming a laminate comprising a plurality of flexible graphite sheets which comprise graphene layers; and directionally aligning the graphene layers of the laminate.

2. The process of claim 1 wherein directionally aligning the graphene layers of the laminate is effected by the application of pressure.

3. The process of claim 2 wherein the application of pressure is effected after the formation of the laminate from the plurality of flexible graphite sheets.

4. The process of claim 3 wherein the graphene layers of the flexible graphite sheets which make up the laminate are subjected to the application of pressure prior to the formation of the laminate, by increasing the pressure applied to the sheets during the calendering process.

5. The process of claim 2 wherein the application of pressure to the laminate results in an increase in the density of the laminate.

6. The process of claim 4 wherein the increase in the pressure during the calendering process results in the formation of flexible graphite sheets having a greater density.

7. A laminate produced in accordance with the process of claim 1.

8. A laminate produced in accordance with the process of claim 3.

9. A laminate produced in accordance with the process of claim 4.

10. A thermal solution comprising a plurality of flexible graphite sheets laminated into a unitary article, wherein the thermal anisotropic ratio of the article is at least about 70.

11. The thermal solution of claim 10 wherein the thermal anisotropic ratio of the article is at least about 160.

12. The thermal solution of claim 10 wherein the laminate is formed by laminating flexible sheets of compressed particles of exfoliated graphite with a suitable adhesive.

13. The thermal solution of claim 12 wherein the adhesive comprises a pressure sensitive or thermally activated adhesive.

14. The thermal solution of claim 10 which comprises a heat sink.

15. The thermal solution of claim 10 which comprises a heat spreader.